

ANNUAL REPORT OF THE Medical Officer of Health

**OF THE
ST. ALBANS
RURAL DISTRICT COUNCIL
FOR THE YEAR 1913,**

BY

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ETC., ETC.,

ST. ALBANS:

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—
1914.

**To the Chairman and Members of the St.
Albans Rural District Council.**

GENTLEMEN,

I have the honour to present to you my Report for the past year as Medical Officer of Health for the District over which you preside.

Extension of City Boundaries.

On November the 9th, 1913, the Boundaries of the City of St. Alban were extended, whereby 1,698 acres, which were formerly in this district, have now been added to the City, and at the same time 1,552 inhabited houses, carrying with them a population of 6,530 persons, which formerly belonged to this district, are now included in the City boundaries.

But inasmuch as this extension only took place seven weeks before the end of the year, it would be confusing and impracticable to give you statistics such as Birth rate, Death rate, and number of Infectious Diseases, etc., for so short a period. For the purposes of this Report, therefore, I am assuming that the extension did not take place till January 1st, 1914, and all matters contained herein, unless otherwise specified, refer to the old district.

Area and Population.

The total area of the District comprises 38,772 acres, having a population, according to the Census of 1911, of 19,469 persons, and estimated up to the end of 1913 as 20,491 persons, distributed amongst seven "parishes" or "localities," as indicated in the following tables.

In this population is included the population of two asylums—the Hertfordshire County Asylum with 836 patients and 132 officers, and the Middlesex County Asylum with 1,745 patients and 267 officers, making a total of 2,581 patients and 399 officers, that is 2,980 in all. The Hertfordshire County Asylum receives patients from this District, which I estimate at 38. This number of patients together with the officers may fairly be regarded as belonging to the true population of the District, but not the remainder of the inmates. For the purposes therefore of this report I deduct 2,543 from the population (20,491), that is, the whole population of the two asylums—2,980 less 437 (that is 399 officers and 38 patients), giving a true population for statistical purposes as 17,948.

The average number of persons per acre is .46.

The number of inhabited houses in the District is 4,211, which with a population of 17,948 gives the average number of persons per house as 4.26.

In the year 1912 the number of inhabited houses in the District was 4,062.

During the year 73 new houses were erected in this District.

The natural increase during the year has been 230 births over deaths, as shown in the following table:—

Excess of Births over Deaths in 1913.

District	Births.	Deaths.	Excess of Births.
Harpden Rural ...	15	4	11
Redbourn ...	43	33	10
St. Michael's Rural	14	6	8
St. Peter's Rural ...	193	56	137
St. Stephen's ...	39	27	12
Sandridge Rural ...	38	14	24
Wheathampstead ...	67	39	28
	409	179	230

In the year 1912 the excess of births over deaths was 249.

Vital Statistics.

Births.—The total number of Births registered in the District during the year was 406, composed of 220 males and 186 females, to this must be added 3 males, who, though belonging to the District were registered as born outside the District, making a total of 409. Five of these (all males) were illegitimate. This gives a Birth rate of 22.78 per 1,000 population.

The Birth rate for the year 1912 was 23.47.

Deaths.—The number of Deaths registered in the District during the year was 318.

70 of these deaths took place in the Hertfordshire County Asylum, all but 5 of which were of non-residents, but inasmuch as one other was unassignable to any other District, it has to be included as belonging to this District. 101 of these deaths took place in the Middlesex County Asylum, all of which were of non-residents, but inasmuch as 2 of these deaths were unassignable to any other District they have to be included as belonging to this District. 4 of these deaths took place at the National Children's Home and Orphanage Sanatorium at Harpenden, all of which were non-residents, but inasmuch as one was unassignable to any other District it has to be included as belonging to this District.

There were also 4 other deaths which did not belong to the District.

In addition, there were 31 deaths of residents which took place outside the District which have to be included.

Deducting therefore 64 deaths from Herts County Asylum, 99 from Middlesex County Asylum, 3 from the National Children's Home, and the 4 others, and adding these 31, we get the total number of deaths belonging to the District as 179.

This gives the true Death rate for the District as 9·97.

The Death rate in this District for the year 1912 was 9·42.

The nett Death rate is not necessarily however a rate strictly comparable to other Districts.

The Death rate in different localities varies considerably, owing to the average age and sex of its inhabitants. If for instance the locality in question is one chiefly frequented by elderly residents who have retired there to spend the latter part of their life, it is natural to expect the Death rate to be high.

Again, if the locality is chiefly inhabited by young children, it is natural to expect the Death rate to be high, for the Death rate amongst infants is higher than at any other period of life.

On the other hand, if the inhabitants of a locality are chiefly young adults, it is natural to expect the Death rate to be low.

The sex of the inhabitants is also a factor to be taken into account, for the average life of a woman is greater than that of a man.

By comparing at the Census of 1911, the composition of the population in each locality with that of England and Wales, Dr. Stevenson, the Superintendent of Statistics, has calculated a factor for correction in each District which, if multiplied by the Crude Death rate gives a Standardised Death rate, that is, the Death rate from all causes which would have occurred if the population of the District had the same proportionate age and sex distribution as the population of England and Wales.

The Standardised Death rate for this District is 10·00.

The Standardised Death rate for the year 1912 was 9·45.

The following table gives the provisional Vital Statistics for England and Wales, etc., for the year 1913, from which it will be seen that though the Birth rate in this District is low, our Death rate compares most favourably with other parts of the country.

	ANNUAL RATES PER 1000 LIVING.			Deaths under One Year to 1000 Births.	
	BIRTHS	DEATHS			
		Crude.	Stand- ardised		
England and Wales	23·9	13·7	13·4	109	
96 Great Towns, including London ...	25·1	14·3	14·7	116	
145 Smaller Towns	23·9	12·8	13·0	112	
England and Wales, <i>less</i> 241 Towns ...	22·2	13·1	12·1	96	
London	24·8	14·2	14·2	104	
St. Albans Rural	22·78	9·97	10·00	75·79	

Infant Deaths.—The number of Deaths of infants under 1 year of age was 31, which gives a Death rate of 75·79 per 1,000 nett births.

The Death rate for the year 1912 was 48·07.

Zymotic Deaths.—There were 15 Deaths from the 7 principal Zymotic Diseases as shewn in the following table:—

Small-pox ... ... ...	...	0
Measles ... ... ...	...	1
Scarlet Fever ... ... ...	...	1
Diphtheria and Croup ...	...	0
Whooping Cough ... ... ...	...	5
Enteric Fever ... ... ...	...	0
Epidemic Diarrhoea ... ... ...	...	8

Of the 8 deaths from Epidemic Diarrhoea, 7 were of infants under one year of age.

Of these 7, only 4 took place during the summer months, and they were all scattered in different parts of the District. I inquired carefully into each death, and also into the local conditions with regard to other cases of Diarrhoea. With the exception of London Colney where there was a mild and quite small epidemic, I found all these deaths were isolated cases of the disease.

Localities.	Area in Acres.	Popu- lation.	Persons per Acre.	No. of In- habited Houses	Av'rage No. of Persons per House.	Births.		Rate per 1000 Pop- ulation	Deaths of Resi- dents.	Rate per 1000 Pop- ulation.
						M.	F.			
Harpenden Rural...	3479	396	.11	85	4.65	7	8	37.87	4	10.10
Redbourn ...	4563	2091	.45	481	4.34	22	21	25.64	33	15.78
St. Michaels Rural.	6269	851	.13	195	4.36	8	6	16.45	6	7.05
St. Peters Rural ...	6239	7589	1.21	1721	4.40	106	87	25.43	56	7.37
St. Stephens ...	7326	1973	.26	583	3.38	16	23	19.76	27	13.68
Sandridge Rural ...	5709	2139	.37	453	4.72	19	19	17.76	14	6.54
Wheathampstead...	5187	2909	.56	693	4.19	45	22	23.03	39	13.40
						223	186			
Totals ...	... 38772	17948	.46	4211	4.26	409		22.78	179	9.97

For the purposes of this Table the Population of St. Peters Rural does not include the Inhabitants of the two Asylums, which is estimated at 2,543.

Infectious Diseases.

Under the Infectious Diseases Notification Act, 56 cases of Infectious Diseases were notified as follows :—

39 Scarlet Fever (34 of which were removed to the Sisters' Hospital).

14 Erysipelas.

2 Diphtheria (both of which were removed to the Sisters' Hospital).

1 Enteric Fever (which was in the Middlesex County Asylum).

There were no cases of Small-pox.

The appended Tables show the number of cases of each particular disease notified in the whole District, together with the ages at which it occurred. Also the total number notified in each locality, and the number of cases removed to the Sisters' Hospital.

Infectious Diseases during 1913, showing Disease, also place and month of incidence.

SCARLET FEVER.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August,	September	October.	November.	December.	Totals.
Harpenden Rural	...	...	...	...	...	...	...	...	...	...	...	...	0
Redbourn	...	...	...	...	...	...	...	...	...	...	...	...	0
St. Michaels Rural	...	1	...	...	...	...	...	...	...	...	...	...	1
St. Peters Rural..	...	...	...	...	...	...	...	...	1	7	12	1	21
St. Stephens	...	...	2	...	...	...	1	1	1	1	...	1	5
Sandridge	...	...	...	...	...	...	...	4	...	...	...	...	2
Wheathampstead	1	1	...	...	1	...	...	4	...	1	...	2	10
Totals	1	2	2	...	1	...	1	5	2	9	12	4	39

DIPHTHERIA.

ERYSIPelas.

Parishes.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Totals.
Harpden Rural	0
Redbourn	1	...	2	...	...	2	...	...	...	5
St. Michaels Rural	0
St. Peters Rural	1	1	1	1	2	...	...	6
St. Stephens	0
Sandridge	...	1	...	...	...	...	...	...	...	...	...	1	2
Wheathampstead	1	1
Totals	...	1	...	1	...	3	1	1	3	2	...	2	14

Tuberculosis.

This disease, which as a disease was described by Hippocrates as early as the year 300 B.C. as suppuration of the Lung, and which is now responsible for no less than 60,000 deaths in England and Wales annually, has of late years received considerable attention.

The Royal Commission on Tuberculosis presented reports in May, 1904, January, 1907, and their final report in June, 1911, and the Local Government Board has issued no less than four different Regulations which have come into force during a period of four years. But before coming to these I should like to point out a few facts concerning this disease which though perhaps somewhat technical are nevertheless of public interest.

Since the year 1865 Tuberculosis has been recognised as a disease due to a specific infecting agent.

In the year 1888 Professor Koch demonstrated that the infecting agent was the Bacillus Tuberculosis.

There are three main types of Tuberclle Bacillus :—

1. The Human.
2. The Bovine.
3. The Avian.

The Human Tuberclle Bacillus is the chief cause of Tuberculosis in the human subject, and is practically never found in cattle or fowls, though it is occasionally found in pigs.

The Bovine Tuberclle Bacillus is practically the only bacillus found in cattle, but it also affects almost any animal, including man.

The Avian Tuberclle Bacillus, though very occasionally found in the rabbit and mouse, practically only affects birds. It has never been found in man.

And though there are Tuberclle Bacilli with special characteristics which distinguish them from any of these three principal types which are found in man, they are rare.

It can therefore be said that there are two main types of Tuberclle Bacilli which affect the human subject, namely the Human Tuberclle Bacillus and the Bovine Tuberclle Bacillus.

The *Human Tuberclle Bacillus* is conveyed almost entirely through the breath and spit of tuberculous patients. The bacilli become dried and mixed with dust, and are then air borne or are carried by flies into milk and other food, or are conveyed by dirty hands either directly to the mouth or into food.

Children are often infected by dirty hands. Tuberclle bacilli have actually been found in the dirt under the nails of school children. What is more likely than that babies, who naturally crawl about, should become infected by the floor of a dirty room.

It may be possible, though it certainly is rare, for man to be infected with Human Tubercl Bacillus through consuming animal food.

The *Bovine Tubercl Bacillus* is conveyed through tuberculous meat or tuberculous milk, and it is here important to emphasise the fact that Bovine Tubercl Bacilli are not only present in the milk of cows who suffer from tuberculous disease of the udder, but may be present in the milk of tuberculous cows presenting no evidence of disease of the udder, even when examined after death. And too, the milk of a tuberculous cow not containing tubercle bacilli as it leaves the udder, may and frequently does become infected by being contaminated with the fæces and discharge of such diseased animals.

Practically all pulmonary tuberculosis in the human subject is caused by the Human Tubercl Bacillus.

By far the greater bulk of tuberculosis in the human subject, in whatever part it may occur, is caused by the human type of Tubercl Bacillus.

If primary abdominal tuberculosis were excluded, probably 90 to 95 per cent. of all cases of human tuberculosis is due to the human type of tubercle bacillus, and most of the tuberculosis found in the human subject, which is due to the Bovine Tubercl bacillus, is found in children.

The two chief modes of infection, that is routes by which the bacillus can enter the body, are :—

1. Inhalation.
2. Ingestion.

The relative importance of these two methods of entry has been much debated, but most authorities agree that inhalation is by far the most important of the two.

As I have stated before, by far the greater bulk of tuberculosis in man, whether it be in the lung or in other parts of the body, is due to the Human Tubercl Bacillus, and the principle or almost exclusive source of pulmonary tuberculosis, is the inhalation of bacilli from sputum which has dried and become mixed with dust and is then air borne.

One word with reference to the congenital origin of tuberculosis. Though it cannot be denied that a mother may transmit this disease to her child, it is admittedly very rare. But what a parent, that is either father or mother, may and frequently does transmit to their offspring is the predisposition, that is the child has a low resisting power, and when exposed to infection easily falls a prey to the disease.

Much can be done in preventing the spread of Consumption by educating the patient as to the nature of the disease and the importance of care in many details.

The spit, which is highly infectious, should always be expectorated either into a suitable vessel which can be effectively disinfected, or into some material which can be burnt, and when burnt it is important that it should be burnt in a live fire, and not thrown at the back of the grate where it can become dried. For in this way the germs are not destroyed but only dried and become mixed with the air, and are another source of infection.

To spit promiscuously on the floor or in the road is not only a disgusting habit but in the case of consumptives most highly dangerous to the public at large. For in this way the infection may be carried by flies, or, as I have said before, dried and carried in the air either to be directly inhaled or to settle on the food.

It is very important that when coughing a Consumptive patient should place his hand or handkerchief in front of his mouth, for by so doing the spread of infection can be considerably diminished.

A patient suffering from Pulmonary Tuberculosis should always occupy a separate bedroom. This is highly important and should always be insisted upon.

Under the heading of Preventive Measures I would unhesitatingly place first and foremost fresh air and sunshine, and next in importance good living.

Fresh air and sunshine, partly because in its presence the vitality and general health of the individual is enhanced, and partly because in its presence the bacilli are unable to thrive.

Our Bye-laws make no mention as to the height of the window, and allow as a minimum a window space of one tenth of the floor space, which I venture to suggest is not sufficient.

Bedrooms especially should be well ventilated, and not overcrowded, and not filled up with too many hangings.

Besides fresh air and general sanitary surroundings good food is essential.

Consumption is essentially a disease of the poor. I do not mean that the disease is confined to the poor, but that the lower the social scale the higher is the mortality from Tuberculosis, as is shewn well in the following table giving the death rate per thousand:—

Professional and independent class	...	1·15
Middle class	...	2·35
Artisan and small shopkeepers	...	3·4
General service class, including servants, hawkers, etc.	...	3·56

Much can be done in preventing the contraction of the disease by paying attention to the general hygiene of the child. It is important that the mouth is kept in a healthy state.

Decayed and unhealthy teeth should be removed, and the tooth brush should be used night and morning. Especially is it important that the mouth should be clean at night time, and that a child should not be allowed biscuits and sweets after it has gone to bed, unless the teeth are thoroughly brushed afterwards.

The condition of the nose and throat should be watched. The presence of adenoids and unhealthy tonsils is a source of danger, for it is frequently the site where tuberculosis germs first make their entry into the body.

On the 1st January, 1909, the Public Health (Tuberculosis) Regulations, 1908, came into force. This provided for the notification of Pulmonary Tuberculosis amongst the inmates of Poor Law Institutions and amongst persons under the care of District Medical Officers.

On the 1st May, 1911, the Public Health (Tuberculosis in Hospitals) Regulations, 1911, came into force. This provided for the further notification of Pulmonary Tuberculosis amongst in-patients and out-patients at Hospitals or similar Institutions.

On the 1st January, 1912, the Public Health (Tuberculosis) Regulations, 1911, came into force. This provided for the notification of all cases of Pulmonary Tuberculosis by all Medical Practitioners.

(During the first month of the year when these three Regulations were in force I received seven notifications: six under the Public Health (Tuberculosis) Regulations 1911, and one under the Public Health (Tuberculosis in Hospitals) Regulations, 1911. Two were duplicates, which leaves us with five new cases.)

On the 1st February, 1913, the Public Health (Tuberculosis) Regulations, 1912, came into force. This revokes all the

previous regulations, and makes compulsory the notification of all cases of Tuberculosis whether pulmonary or non-pulmonary, by every Medical Practitioner, whether occurring in an Institution or otherwise. (Except that patients notified under previous regulations are not to be notified again.)

This is the first regulation to provide for the notification of Tuberculosis occurring in patients in Asylums.

Under these regulations four forms of Notifications are supplied :—

Form A. To be used for all primary Notifications, whether notified by a general practitioner or a Medical Officer of an Institution.

Form B. To be used by School Medical Inspectors.

Form C. To be used by a Medical Officer of a Sanatorium or Poor Law Institution for all cases admitted into an Institution which he believes to have been previously notified.

Form D. To be used by the Medical Officer of a Sanatorium or Poor Law Institution for all cases leaving an Institution.

Under these regulations I have received in all 42 Notifications :—

31 on Form A. (21 of which were pulmonary and 10 non-pulmonary.)

5 on Form C. (All of which were pulmonary.)

6 on Form D. (All of which were pulmonary.)

It might reasonably be imagined that the number of cases notified on Form A would be an accurate estimate of the

number of new cases of Tuberculosis which have occurred in the District during the year, but this is not so. For, as a matter of fact, notifications received on Form A include a good many duplicate notifications. Some by a general practitioner, who, had he known that the case had been notified before, should not have notified it at all, and some by a Medical Officer of an Institution who, had he known that the case had been previously notified, should have used Form C. Some cases again which are new cases, inasmuch as they have not been notified in this district before, are notified on Form C because the Medical Officer of the Institution believes them to have been previously notified.

Again, the total number of cases notified throughout the county, or for that matter the country on Form A, is not an accurate estimate of the number of new cases in the county or country. For there is no means of checking whether the notification of a case received on Form A has or has not been previously notified in another district.

Again, Form C is not a complete list of cases entering Institutions, because if the Medical Officer believes the case has not been notified before he notifies it on Form A.

Until a central office or bureau is established, where all Tuberculosis notifications from all over the country are received and classified, it will be impossible to get any statistics which are accurate or of any material value.

In this district during the year 35 cases have been notified for the first time :—

26 of these were cases of pulmonary Tuberculosis.

9 of these were cases of non-pulmonary Tuberculosis.

Of the 26 pulmonary cases 16 were males and 10 were females. Of the 9 non-pulmonary cases 4 were males and 5 were females.

The following table shows the location of the disease and the age and sex of the cases:—

	0 to 1		1 to 5		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 and up- wards		Totals.	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Pulmonary...	1	1	3	3	6	3	5	2	...	1	1	...	...	16	10	
Joints	1	1	1	1	1	...	...	...	...	...	...	...	...	...	...	3	2	
Cervical Glands	1	...	...	...	...	...	...	...	...	...	...	1	
Abdominal Glands	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
Bone	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
Larynx	1	...	...	...	...	...	...	...	...	...	1	
Totals	1	1	3	3	4	4	6	4	5	2	...	1	1	...	...	20	15	
																			35	

I have looked very carefully into the occupations of all cases notified, but I do not find that the information obtained is of much value; still, I will give it for what it is worth.

Of the 26 pulmonary cases, 1 was a child, that is, under 15 years of age. Ten follow no trade; this includes housewives and a few whose occupation I was unable to obtain, chiefly due to the fact that Form C does not require the occupation to be stated. Three were patients in an Asylum and the remaining 12 followed various occupations as follows:—tailors 2, labourers 2, musical instrument maker, engineer's assistant, groom, factory hand, electrician, printer, stockbroker, domestic servant, of each 1.

Of the 9 non-pulmonary cases, 6 were children, 1 was a domestic servant, 1 a haybinder, and 1 a bookfolder.

The Tuberculosis Regulations, 1912, require that a Register of notified cases should be kept by the Medical Officer of Health, and that such Register should be private and only inspected by specially authorised persons, and that a weekly statement of notified cases should be sent to the County Medical Officer of Health. These duties are faithfully carried out.

As pointed out by the circular of the Local Government Board, dated 20th December, 1912, it is essential that there should be close co-operation between the Medical Officer of Health and the Tuberculosis Officer of the Dispensary which serves the district of the Sanitary Authority.

Dr. Hyslop Thomson, the Tuberculosis Officer appointed by the County Council, who through the County Medical Officer of Health receives a weekly statement of notified cases, has now organised his scheme which is working well, and is, I hope, within sight of completion.

Dr. Hyslop Thomson has prepared a list of questions chiefly with reference to general sanitary conditions, such as number of living rooms, suitability of bedroom accommodation, ventilation, and lighting. Is there a garden? Is there room for a shelter? And other questions for information which he wishes to obtain.

This information I obtain for him. Sometimes through the doctor in attendance, and always in some way which I consider is giving as little inconvenience as possible to those concerned.

Sanitary defects when found are dealt with.

The treatment of the patient then falls under one of the 4 following heads:—

1. Home treatment.
2. Dispensary treatment.
3. Hospital treatment.
4. Sanatorium treatment.

And whatever line of treatment is decided upon, Dr. Hyslop Thomson is only too willing to give what advice or assistance he can, in conjunction with the doctor in attendance.

If it is desired any contacts or suspicious cases will be examined by him, and in this way it is hoped, and this is extremely important, that early cases will be detected. And here it should be stated that in all suitable cases arrangements are made for the sputum to be bacteriologically examined at the expense of the County Council.

Home Treatment. Besides general advice which Dr. Hyslop Thomson is always prepared to give in conjunction with the doctor attending, leaflets, "directions for those suffering from Tuberculosis," sputum flasks, temperature charts, and thermometers are provided, and open air shelters in suitable cases, and where required tuberculin is available free of charge.

Dispensary Treatment. This treatment is frequently carried on in conjunction with home treatment. A temporary Dispensary has been established in St. Albans for some months, and now a house has been taken as a permanent Dispensary, which Dr. Hyslop Thomson attends personally at least once a week, namely Friday afternoons. Here he sees patients sent to him, either for treatment or diagnosis, and tuberculin treatment is given.

He is assisted in his work by Nurse Evans, the Tuberculosis Nurse appointed by the County Council.

Hospital Treatment. Arrangements have been made with the Management Committee of the St. Albans and Mid Herts Hospital for the treatment of surgical and non-pulmonary cases. A fee of 25/- per week is paid for this purpose by the Insurance Committee in the case of insured persons, and by the County Council in the case of uninsured persons in all suitable cases.

It should be borne in mind that under the Insurance Act provision is made by the County Council for the treatment of all patients, whether insured or uninsured, at Dispensaries, Hospitals and Sanatoriums.

Sanatorium Treatment. The County Council and Insurance Committee have made provisional arrangements for Sanatorium treatment in the case of insured and uninsured persons in existing Institutions.

It is only in the early stages of the disease that Sanatorium treatment is recommended.

The permanent scheme of the County Council includes the erection of a County Sanatorium, which will provide accommodation for 60 Sanatorium beds and 40 Hospital beds.

The Institutions to which patients at present are being sent are in various parts of the country, and as in some cases the distance is considerable, the County Council and the Insurance Committee pay the expenses of patients to and from these Institutions.

An effort is made to follow up patients when discharged from a Sanatorium, and in the case of patients who are not able to return to work, treatment is continued at home or at a dispensary.

Care Treatment. By care treatment is understood the lay assistance which can be given to patients in the following ways :—

1. The provision of milk or other nourishment and clothing in necessitous cases.
2. A general interest in the welfare of the patients and of those dependent on them.

3. Assistance to obtain suitable employment or part time employment for patients.
4. Assistance to obtain appliances in cases of non-pulmonary tuberculosis.
5. Assistance to get dental treatment.

The Insurance Committee provides milk in cases which it is thought necessary for insured persons, but has no powers to assist in this way the uninsured.

Care treatment can only be conducted by voluntary agencies. The St. Albans and District Insurance Committee have arranged to undertake the question of care treatment in St. Albans.

In all cases where necessary disinfection is carried out by this Council.

Bedding is removed to the steam disinfector at the Sisters' Hospital and there disinfected.

Rooms are disinfected with Formalin and instructions given that they should be thoroughly cleansed with soap and water and allowed plenty of fresh air and sunlight.

Passing on to a detailed statement as to each locality, I have to report as follows:—

HARPENDEN RURAL.

Area in acres, 3,479. Population 396. Average number of persons per acre, .11. Number of inhabited houses, 85. Average number of persons per house, 4.65. Births: male 7, female 8; total 15. Deaths 4, giving rate per 1000 population of 37.87 for the former, and 10.10 for the latter. Deaths under one year of age 2.

No case of Infectious Disease was notified to me during the year.

One case of Non-Pulmonary Tuberculosis was notified to me during the year.

Seven new houses were erected during the year.

The number of dairies and cowsheds registered is 1.

The Sewerage System in this District consists almost entirely of dumb-wells, which are emptied, as necessity arises, by the occupiers of the houses to which they belong.

A few isolated cottages throw their slop-water on to the ground. There is no scheme for collection of house refuse or closets in this District, and I do not consider one is necessary.

Part of the District obtains its water from wells, the remainder receives its supply from the Harpenden Waterworks Company. The District is very scattered, and this system is quite satisfactory.

REDBOURN.

Area in acres, 4,563. Population, 2,091. Average number of persons per acre, .49. Number of inhabited houses, 481. Average number of persons per house, 4.34. Births : male 22, female 21; total 43. Deaths 33, giving rate per 1000 population of 25.64 for the former, and 15.78 for the latter. Deaths under one year of age, 6.

Five cases of Infectious Disease were notified to me during the year, all of Erysipelas.

Seven cases of Pulmonary Tuberculosis and 1 case of Non-Pulmonary Tuberculosis were notified to me during the year.

Three new houses were erected during the year.

The number of dairies and cowsheds registered is 5.

The Sewerage Scheme in this District consists of dumb-wells, which are regularly cleaned out by a man employed for the purpose.

The Scheme is satisfactory. The contractor appointed by this Council does his work well, and no complaints have been received.

As reported last year, a new pipe drain has been laid which carries the slop water by an iron pipe across the river into 3 settling tanks which are emptied by the contractor. This drains a portion of the village, namely cottages at the bottom of High Street and Fish Street, and is working satisfactorily.

Most of the houses have ash-bins and refuse pails, which are collected each week.

Each house or cottage has an earth-closet.

The water supply is obtained from private wells and from 9 pumps sunk by this Council.

Complaints were received that the 3 public wells, one situated at North Common, one at West Common, and one at High Street were contaminated. On examination this was found to be due to surface pollution only. The pumps were reset in concrete and the tops blue bricked and drained, and they are now in a satisfactory condition.

Farms and cottages on the Gorhambury estate are supplied by a private water scheme, water being obtained by pumping from a well adjoining the Redbourn and St. Albans road.

ST. MICHAEL'S RURAL.

Area in acres, 6,269. Population 851. Average number of persons per acre, .13. Number of inhabited houses, 195.

Average number of persons per house, 4·36. Birth: male 8, female 6; total 14. Deaths 6, giving rate per 1,000 population of 16·45 for the former and 7·05 for the latter. Deaths under one year of age, 2.

One case of Scarlet Fever was notified to me during the year.

One case of Pulmonary Tuberculosis was notified to me during the year.

Six new houses were erected during the year.

The number of dairies and cowsheds registered is 5.

The Sewerage System in this District consists of dumb-wells, which are emptied, as necessity arises, by the occupiers of the houses to which they belong.

There are a few isolated cottages, the occupiers of which throw their slop-water on to the ground.

38 houses situated on one side of the Common at Leverstock Green drain all their slop-water into an open ditch bordering the allotments.

As I reported last year this condition is not satisfactory.

The village of Leverstock Green is situated in two other Parishes, viz., Watford Rural and Hemel Hempstead, and as these parts of the village also require attention, negotiations have been going on during the year between the Watford Rural Council and this Council with a view to a joint drainage scheme. A scheme has been prepared which has tentatively received the approval of the 3 Councils, and I hope to be able to report next year that the drainage scheme is in operation.

There is no system of collection of house refuse, but I think this is a matter which will require the attention of this Council

at Leverstock Green as soon as the sewerage scheme is in operation.

Water Supply.—Gorhambury estate, including the following farms and cottages are supplied from a reservoir on the Gorhambury estate:—

Westwick Hall Farm and 2 cottages.

Corner Farm.

3 cottages in Hemel Hempstead Road.

Beech-tree cottages.

Hill End Farm and 2 cottages.

Farmhouse and cottages at Maidens Crouch and Apps Pond and Potters Crouch.

Holly Bush Farm.

Préwood Farm and cottages.

Prae Wood House.

Houses adjoining the City of St. Alban are supplied by the St. Albans Water Works Company.

The village of Leverstock Green is supplied by the Hemel Hempstead Water Works Company.

A few outlying cottages are supplied from their own wells.

The system works satisfactorily.

ST. PETER'S RURAL.

Area in acres, 6,239. Population, 7,589 (plus 2,543 for the inhabitants of the Asylums). Average number of persons per acre, 1·21. Number of inhabited houses, 1,721. Average number of persons per house, 4·40. Births: male 106, female 87; total, 193. Deaths 56, giving rate per 1,000 population of 25·43 for the former and 7·37 for the latter. Deaths under one year of age, 8.

28 cases of Infectious Diseases were notified to me during the year: 21 Scarlet Fever, 6 Erysipelas, and 1 Enteric Fever (which occurred in Middlesex County Asylum).

13 cases of Pulmonary Tuberculosis and 3 cases of Non-Pulmonary Tuberculosis were notified to me during the year.

32 new houses were erected during the year.

The number of dairies and cowsheds registered is 11.

I.—*Camp Ward.*

The Sewerage Scheme in this part consists of dumb-wells, which are emptied from time by the owners.

This portion of the district is now incorporated within the City Boundaries, and it is therefore receiving attention at the hands of the City Council.

II.—*Colney Heath.*

The Sewerage System here consists of dumb-wells; there are a few cottages, however, the occupiers of which throw their slops on to the ground. There are both privies and earth closets.

A weekly collection of house refuse in the village of Colney Heath is carried on by contract with this Council, and the system is working satisfactorily.

Application has been received from the occupiers of two houses at Roe Green to extend this collection to their part of the district, but inasmuch as this part of Roe Green is situated over two miles from the village of Colney Heath, and only consists of about 12 houses, this Council does not see its way to accede to the request.

The Water Supply is principally obtained from shallow wells, but about 50 houses in the Roe Green district are supplied by agreement from the Marquis of Salisbury's Waterworks at Hatfield.

The Herts County Asylum has its own Water Supply, which is also laid on to cottages on the estate.

III.—*London Colney.*

The Sewerage System here consists of a main sewer which takes surface-water and the slop-water from most of the houses, but to which is connected the soil pipes of not more than three houses. This sewer empties itself into a brick and cement tank in a field. This tank is emptied partly by a windmill pump, and from time to time by a man appointed for the purpose.

Complaints have been received of a nuisance arising from overflowing dumb wells in Seaton Road. This is due to the excessive amount of surface water getting into the dumb wells.

The village of London Colney is situated partly in this District and partly in Barnet Rural District. The Surveyor has submitted a Sewerage Scheme to this Council, and the matter has been referred to a Committee to confer with the Barnet Rural District Council as to the feasibility of a joint scheme.

I hope the Barnet Rural District Council will see their way to consent to a joint scheme, as I am sure that this would be more satisfactory. But at the same time I would urge this Council in any case when preparing this scheme to make it sufficiently comprehensive to include the whole of the village proper, particularly White Lion Lane, and at the same time to remember that there is every probability that the village will considerably increase in size in the near future.

There are chiefly earth closets, but a few privies remain.

There is a weekly house to house collection of refuse in this District, which is working satisfactorily.

The Water Supply is almost entirely from the St. Albans Waterworks mains.

IV.—Hill End Asylum.

This Institution has its own septic tank, which works most satisfactorily.

The Asylum has its own Water supply, which is also laid on to the cottages on the estate.

V.—Napsbury Asylum.

This Institution has its own septic tank, the effluent from which is treated by irrigation, and is in every way satisfactory. There is a side effluent, which contains chemicals, from an engine house, which is under observation.

This Asylum has also its own Water supply, including the lodges and outlying cottages belonging to the Asylum.

ST. STEPHEN'S.

Area in acres, 7,326. Population, 1,973. Average number of persons per acre, .26. Number of inhabited houses, 583. Average number of persons per house, 3.38. Births: male 16, female 23; total 39. Deaths 27, giving rate per 1,000 population of 19.76 for the former and 13.68 for the latter. Deaths under one year of age, 3.

Five cases of Infectious Diseases were notified to me during the year, all of Scarlet Fever.

Two cases of Pulmonary Tuberculosis were notified to me during the year.

13 new houses were erected during the year.

The number of dairies and cowsheds registered is 8.

The Sewerage System consists of dumb wells, which are emptied by their owners.

There are both privies and earth closets. The number of the former, however, is now very small, and chiefly in the outlying districts.

There is a weekly house to house collection of refuse in Park Street, Frogmore, and Colney Street, which continues to work satisfactorily. This collection should be extended to include Bridgefoot cottages.

The Water Supply is obtained from wells and from the St. Albans Waterworks Company.

It would be satisfactory if arrangement could be made with this Company to extend their mains up Branch Road.

Seven houses are supplied by the Colne Valley Water Co. by agreement.

SANDRIDGE RURAL.

Area in acres, 5,709. Population, 2139. Average number of persons per acre, .37. Number of inhabited houses, 453. Average number of persons per house, 4.72. Birth: male 19, female 19; total 38. Deaths 14, giving rate per 1,000 population of 17.76 for the former and 6.54 for the latter. Deaths under one year of age, 3.

Four cases of Infectious Diseases were notified to me during the year : 2 Scarlet Fever and 2 Erysipelas.

Two cases of Pulmonary Tuberculosis and 3 cases of Non-Pulmonary Tuberculosis were reported to me during the year.

Five new houses were erected during the year.

The number of dairies and cowsheds registered is 7.

The Sewerage System here consists of dumb wells, which are emptied by the owners, and a sewer which runs through the village and empties itself into a ditch which extends some half-a-mile down Hatfield Road, Sandridge. Complaints have been received on several occasions during the year of a nuisance arising. The matter is receiving the attention of this Council.

In another part of my report I have drawn attention to the fact that the County Council School at Sandridge has no water supply.

A scheme for the sewerage of Bernards Heath, now in the City of St. Albans, will be considered, in conjunction with that of the Camp Ward, by the St. Albans City Council.

The water supply is obtained from wells and the St. Albans Waterworks Company.

WHEATHAMPSTEAD.

Area in acres, 5,187. Population, 2,909. Average number of persons per acre, .56. Number of inhabited houses, 693. Average number of persons per house, 4.19 Births: male 45, female 22; total 67. Deaths 39 giving rate per 1,000 population of 23.03 for the former and 13.40 for the latter. Deaths under one year of age, 7.

13 cases of Infectious Diseases were notified to me during the year: 10 Scarlet Fever, 2 Diphtheria, and 1 Erysipelas.

One case of Pulmonary Tuberculosis and one case of Non-Pulmonary Tuberculosis were notified to me during the year.

Seven new houses were erected during the year.

The number of dairies and cowsheds registered is 10.

I. *Wheathampstead Village* has a main sewer which takes the surface water, slops, and soil from most of the houses, which is eventually treated by irrigation.

II. *New Marford*. As reported last year, the sewerage system is by dumb wells, but owing to the close proximity of the cottages to one another and to the low-lying position in which this district is situated, the ground is becoming saturated with sewage, and the condition is far from satisfactory.

Plans for a new drainage scheme are complete and are ready for the Committee appointed by the Council. Land has been acquired and taken possession of by this Council, and the work should be commenced in a few months.

Quite recently the Surveyor presented you with a very detailed report on the sewerage scheme which you are adopting, which with his permission I am incorporating in this Report.

SURVEYOR'S REPORT.

I have now prepared a complete and detailed scheme for the proposed reconstruction of the Wheathampstead Sewage Disposal Works, and which also includes the sewerage of the village of Marford and its connection with the above new works.

The new sewerage will comprise nine inch sewers in the East and West Necton Roads and Bottom Road, and a twelve inch main sewer from manhole number five in the Bottom Road along the passage to the new purification works.

In the above roads there will be nine manholes and two lampholes, and in the length of twelve inch sewer from man-

hole number five to the main outfall, there will be two manholes and three lampholes.

The proposed Sewage Purification Works are designed to treat the sewage from a population of 3,000 people, allowing for treating the first three times the D.W.F. of 60,000 gallons as sewage proper, and between three and six times as storm water, the D.W.F. being taken at 20 gallons per head.

The existing works consist of two tanks formed by lining excavations with concrete, and having a water capacity of only about a quarter the dry weather flow, the sewage simply passing through these open tanks to a soakaway ditch, the tanks being emptied occasionally by means of a horse pump, and the foul liquor and sludge being distributed over the surface of the land, which is cultivated, the area of the present site being 1.566 acres.

It is proposed to acquire an additional $1\frac{1}{2}$ acres of land on the south of the present site, as shewn on the accompanying plan.

A new storage reservoir having a capacity of one-half the D.W.F. will be constructed, the existing sewer being diverted as shewn, and the crude sewage from the existing sewer will discharge into a channel, where it will mingle with the crude sewage being delivered by a new sewer from another portion of the district, the whole passing through one or both of the grit chambers, each having a water capacity of one-hundredth the D.W.F., and thence to the reservoir, the lower portion of which will be covered with slate filling, which will keep the solid matters of the sewage in suspension while the reservoir is filling until the pumps are put into operation, thus preventing the accumulation of sludge in the pump well, this arrangement having worked satisfactorily and continuously for the last eight years at Rustington, and for the last four years at Buxted, Sussex.

The sewage will be raised through two three inch suction pipes, each fitted with a foot valve and rose, and surrounded by a screen having bars spaced half an inch apart.

Two centrifugal pumps coupled together by friction clutches and belt, driven by two $3\frac{1}{2}$ h.p. oil engines, arranged so that either or both engines can drive either or both pumps, the delivery from either pump driven under normal conditions by either engine being 8,000 gallons per hour. so that half the installation can lift three times the D.W.F. in $22\frac{1}{2}$ hours.

The first three times the D.W.F. will then be forced through a five inch iron rising main to a brick chamber as shewn, from which it will gravitate through nine inch stoneware pipes, carried on concrete and hard core where above ground, and covered by an earth bank, to four biological slate beds having a total water capacity of one D.W.F., and being formed by lining with half-inch slate slabs backed by cement concrete, as approved by the Local Government Board for Netherne Asylum, an excavation in the ground which will be divided by concrete walls into four beds, the floors of which will be formed of a similar material and shaped to drain to watertight hand valves, through which the effluent will be discharged to a distributing trench following the contour of the ground, and from which it will be irrigated over part of the new as well as the existing site.

The slate beds will have an average working depth of three feet. and will be fitted with watertight handstops for controlling the admission of sewage.

The pumps and engines will be enclosed in a pump house formed of nine inch brick walls covered with a slate roof, having a concrete floor and being constructed upon the external and cross walls of the storage reservoir, concrete columns as shewn being carried from the floor of the reservoir up to the bed plates of the engines and pumps, to carry them respectively.

The grit chambers are formed of concrete and are fitted with watertight handstops for controlling the admission of sewage, and each is fitted with a penstock which will permit the water standing in a grit chamber to be discharged to the reservoir after filtering through a few inches of the coarse clinker on the bottom of the grit chamber on which the grit may have settled and from which it can be easily removed.

In times of storm when the flow exceeds three times the D.W.F. the surplus will overflow a storm weir, and after passing through a screen will be treated in one or both of two storm water beds filled with slate filling for the purpose of arresting the solids, and formed by moving the upper portion of the bank separating the two existing tanks, and substituting new concrete floor and partition walls as shewn ; both beds will be provided with a watertight handstop at the inlet, and penstock at the outlet discharging to the storage reservoir.

At the end opposite the inlet each bed has a nine inch iron overflow pipe, so that the storm water will pass through the beds and rise from the bottom through the overflow pipes to the surface of a fine clinker filter which will arrest fine suspended matter, and from which the clarified effluent will discharge into the existing soakaway ditch.

A one inch slate path will be formed round the grit chambers, storm water beds, and filter with steps down to the door of the pump house, and also round the biological slate beds, so as to give convenient access for the purpose of opening and closing valves, and at the same time forming a clean and permanent coping to the top of the walls and banks.

There is existing at the site of the grit chamber a shallow well which will be filled up, in which the water stood on Sept. 17th, 1913, 1.51 feet below the invert of the outfall sewer, and on Oct. 16th, 1913, the water level of the river to the North of the works was 1.98 feet below the invert of the sewer, and con-

sequently the storage reservoir and the storm water beds and the storm water filters will be submerged in subsoil water. The floor of the storage reservoir will be formed by an inverted arch in the centre, and inverted domes at the ends to withstand the upward pressure of the water, and the portion not covered by the pump house will be covered with a concrete roof supported by columns and covered with two feet of earth, so that the reservoir will be sufficiently weighted to withstand the floating tendency when empty.

The floors of storm water beds and filters will be at higher level, and the new work being formed of thick concrete will be sufficiently heavy to withstand the tendency to float caused by the subsoil water.

I have made an approximate estimate of the cost of the whole of the sewers shown in the plans accompanying this report, and of the treatment works above described, and put it at the following figures :—

	£	s.	d.
Street sewers, manholes, lampholes, etc.	409	7	0
Treatment works, including biological beds, pumping plant, etc.	2168	6	9
	<hr/>	<hr/>	<hr/>
	2577	13	9
Engineering and contingencies (10 per cent)	280	0	0
	<hr/>	<hr/>	<hr/>
Exclusive of Land and Easements	£2857	13	9
	<hr/>	<hr/>	<hr/>

III. The sewerage in *Gustard Wood* and other parts of the district is by means of dumb wells, and works quite satisfactorily.

There is no scheme for scavenging in any part of the district, and no complaints are received.

The water supply is chiefly from wells, but 11 houses are supplied from the Childwickbury private Waterworks.

Housing and Town Planning Act.

During the year 73 new houses were erected in this district. 42 of these belong to the new Rural District and 31 to that portion which has now been included in the City of St. Alban. Of these 73 houses, it is estimated that 37 come under sec. 14, 24 of which belong to the new Rural District and 13 to that portion now included in the City.

Under the Housing and Town Planning, etc., Act, 1909, 332 visits have been paid in the districts of Redbourn and St. Michael's (Leverstock Green).

Redbourn. 280 houses were visited and 14 closing orders were made, and in addition 19 cottages were found to need very extensive repairs. The owners were notified and the necessary repairs were thoroughly carried out and therefore the application for closing orders was not necessary. Re-inspection of works in progress, mainly drainage and the construction of cement-lined cesspools, occupied considerable time and prevented the complete inspection of this village. There are now approximately 120 houses to be inspected.

Leverstock Green, St. Michael's. Complaints were received by the Council with regard to the disposal of the waste water of the village, also the Council's attention was drawn to the alleged need of cottages in the village. In order to be in possession of a full record of the sanitary details, Leverstock Green was selected as one of the parts of the district for inspection under the Act during the year.

There are in Leverstock Green, including Westwick Row, 52 houses in all. These were all inspected. With few exceptions the houses are without adequate drainage, and, as reported more fully in another part of this report, the Council are contemplating a proper sewerage scheme.

With one exception at Westwick Row, and which was remedied, no cases of overcrowding were found.

No closing orders have at present been issued, but there are 4 cottages partly built of wood which are in a very bad state of repair. Acting under instructions from this Council, the Clerk has written to the owner requesting that the premises be placed in a habitable state of repair.

Drainage matters are of necessity being allowed to stand over until the Council's Sewerage Scheme is in operation.

As in former reports, in explanation of the working of the Act I should like to point out that a defect in any house let to a new tenant after the date of the passing of the Housing and Town Planning Act can be dealt with under section 15 of the Act, in a manner similar to that under the Public Health Act, 1875, but a defect in a house let to a tenant previous to the passing of the Act cannot be dealt with under section 15, and has to be dealt with under section 17 (sub-section 2), which means that the defect cannot be remedied under the Act, unless the defect is such that it renders the building so dangerous or injurious to health as to be unfit for human habitation.

The following Sanitary defects therefore, 426 in number, have been dealt with under the Public Health Act, 1875, and 92 informal notices were served :—

District or Village.	Premises.			Defective.					Overcrowding.	Animal Keeping.	Totals.
	Damp or Defective.	Unventilated.	Unclean.	Drains.	Ashpits.	Closets.	Paving.	Water Supply.			
Redbourn	39	23	47	71	67	58	20	4	5	10	344
Leverstock Green ...	21	10	10	18	...	17	...	5	1	...	82
Totals	60	33	57	89	67	75	20	9	6	10	426

**Statement required by Article V. of the Housing
(Inspection of District) Regulations, 1910, in regard to
the Inspection of Dwelling-houses under Section 17 (1)
of the Housing, Town Planning, &c., Act, 1909.**

Number of dwelling-houses inspected under and for the purposes of the Section	...	...	...	280
Number of such dwelling-houses which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	...			14
Number of dwelling-houses in respect of which re- presentations were made to the local authority with a view to the making of closing orders	...			14
Number of dwelling-houses in respect of which closing orders were made by the local authority	...			14
Number of dwelling-houses the defects in which were remedied without the making of closing orders	...			93
Number of dwelling-houses which after the making of closing orders were made fit for human habitation				0
General character of the defects found to exist in the dwelling-house inspected, see table on preceding page.				

Last year I reported to you that there were 7 houses unfit for human habitation, situated as follows: St. Peter's 1; this has since been demolished. St. Stephen's 4; 2 of these have since been rebuilt and 2 repaired. Redbourn 2; both of which have been rebuilt.

I also reported 285 defects (as shewn in table on page 17 of my report last year). It is satisfactory to record that out of this number only 23 remain unremedied, and 17 of these are

defects arising from damp walls, and though undesirable are not of a serious character. The remaining 6 refer to houses in Branch Road, St. Stephen's, which have an unsatisfactory water supply.

I have for several years called your attention to the fact that this road is not supplied by the St. Albans Waterworks Company's mains. The mains are carried up as far as the first house, and it would be a small matter to arrange with the St. Albans Waterworks Company to carry their main to the end of the road, and I would again urge this Council to give this matter their serious attention.

Referring again to the 17 defects arising from damp walls. The greater number of old cottages in the district have no damp course, and it is obvious that in houses so constructed there must be some (though in many cases this is only slight) dampness of the walls, which could only be remedied at very considerable expense. If this defect is serious and likely in any way to be detrimental to the health of the occupants, it is always insisted that the owner should remedy it whatever the cost. Those premises where there is any defect due to dampness are kept under observation and visited from time to time.

The matter of the housing of the working classes has received so much notice lately from all quarters that it may be interesting to furnish a few figures in connection with the work done by this Council since the Housing and Town Planning Act came into operation.

It is estimated that there are 2659 inhabited houses in this district, and here I refer to the new district, that is the district as it stands now after the extension of the City boundaries has taken place, and it is estimated that about three-fifths of these houses, say 1,600, come within the scope of section 14 of the Act, that is—are let at a rental not exceeding £16 per annum.

Since the passing of the Act 950 houses have been visited, which are situated as follows: Redbourn 280, St. Stephen's 216, St. Peter's Rural 326 (not including the visits paid in the Camp Ward before the City extension), St. Michael's 47, Wheathampsted 81.

The following houses, 36 in number, were found to be unfit for human habitation: Redbourn 16, St. Stephen's 5, St. Peter's 15. Of these, 8 have been rebuilt, 6 repaired, 2 converted into stores and 6 demolished. The remaining 14, which are situated in Redbourn, where the work under this Act has recently been commenced and is still in progress, are still receiving the attention of this Council.

On the basis adopted in the census returns with regard to overcrowding, that is more than two persons to a room; the rooms counted are the bedrooms and those on the ground floor excluding the scullery.

Out of the 950 houses inspected the number of houses which were overcrowded was 47, and most of these would not be considered overcrowded or constitute a nuisance under section 91 (5) of the Public Health Act, 1875.

General Character of the Housing in the District.

This Council recently instructed their Surveyor and the Inspector to make inquiries in the district, and to ascertain if in any of the parishes there is a "demand" for cottages. I append their report.

SURVEYOR AND SANITARY INSPECTOR'S REPORT.

We have visited the various parishes of the district and have made enquiries as to the demand for new cottages, and are

of the opinion that, with the following exceptions, at the present moment generally there is no demand.

Redbourn. There are a number of dilapidated cottages which are being repaired under the Housing and Town Planning Act, but such repairs are only of a temporary character and we consider that in this district the Council would be well advised to proceed with the erection of cottages, and this opinion is supported by the Redbourn representatives of the Rural District Council. It is suggested to provide in the first instance 6 new cottages.

Leverstock Green. From enquiries made in this district there is evidently a demand for new cottages, but we are informed that this demand is created by the requirements of work-people employed outside the district, and we think therefore that the matter might be allowed to stand over until the contemplated sewerage scheme is in operation.

In conclusion, we would add that there are several other districts in which, if new cottages were erected they would be occupied by the tenants of the old property, but this we consider can hardly be regarded as a "demand," and under such heading we would include the districts of London Colney and St. Stephen's.

Under the Housing and Town Planning Act, Local Authorities have powers to build cottages and are empowered to effect loans for this purpose.

If any Local Authority in the opinion of the County Council fails to meet the requirements of the district in this respect,

that body may, with permission of the Local Government Board, undertake the work itself.

With reference to the building of cottages in this district, I may state that it is the intention of this Council to undertake building of cottages where required.

This Council have appointed a Committee to enter into the necessary negotiations for the acquisition of land at Leverstock Green, Redbourn, and in other districts where necessary, with power to instruct the Surveyor to prepare the necessary plans, &c.

With regard to the building of cottages, may I suggest that this should be on the following lines :—One large living room (in place of two which is usually found), with scullery premises attached and 3 good bedrooms.

In each room there should be a fireplace for warmth, but more especially for ventilation.

I should also like to particularly urge that in the construction of these houses ample window space is provided, not only for ventilation purposes but so that if possible direct light rays may reach every part of the room. From a health point of view I do not think that this point can be overestimated.

Water Supply.

The following table gives a complete return of all the water supplies in the District :—

WATER SUPPLY.

Parish.	Acreage.	Population, 1913.	Portions of Parishes.	Name of Water Company or Undertakers of Water Works.	Particulars of Wells and Efficiency.		Remarks.
					Estimated Number of Houses in District.	Number of Houses having a Piped Supply.	
Harpenden Rural	3479	396	...	... Adjing. Harpenden Urban	88	69	Deep wells. Water plentiful.
Redbourn	4563	2091	...	... Gorhambury Estate	19	506	Deep wells. Water plentiful.
St. Michael's	...	...	...	Shafford Estate	11	488	Nine public pumps.
St. Peters Rural	6269	851	...	...	7	196	A few cottages at Westwick Row are insufficiently supplied, and are receiving attention
St. Stephens	...	...	...	Leverstock Green	...	59	Deep wells. Water plentiful.
	6239	10132	...	Adjoining St. Albans	...	...	For the most part wells are shallow but water plentiful.
	...	...	...	Childwickbury Estate	...	...
	...	...	...	Gorhambury Estate	...	...
	...	...	...	...	...	1727	
	7326	1973	...	Roe Green Estate	...	...
	...	...	...	Hill End Asylum Estate	...	...
	5709	2139	...	Middlesex County, "The Camp	...	...
	5187	2909	...	London Colney	...	...
	38772	20491	...	Park Street } Frogmore	...	...
			...	Colney Street } Colne Valley Co.	...	...
			...	...	7	448	No shortage. Deep wells.
			...	...	...	228	Water plentiful.
			...	...	...	696	3 public pumps are in use in Sand-ridge Village.
			...	...	...	685	Deep wells. Water generally plentiful.
			...	...	...	11	
			...	...	...	1887	
			...	...	...	4135	
				...			12 Public Pumps.

Preventive Measures.

The Sisters' Hospital with an accommodation of 30 beds, has provided ample accommodation for all the Scarlet Fever cases.

The Diphtheria Hospital, with an accommodation of 12 beds, has provided ample accommodation for all the Diphtheria cases.

These two Hospitals are under the charge of Miss Kimberley, whose duties, which are at all times responsible, and at times not unattended by a certain element of personal risk, are always carried out with conspicuous skill and care.

The patients who are removed to the Hospital are chiefly children, but whatever their age they are always made happy and comfortable, and it has been my pleasure on several occasions to hear afterwards, either from the patients or their parents, how much they have appreciated the kind attention they have received.

The Diphtheria patients are generally discharged from the Hospital at the end of a month, reliance as to their freedom from infection being taken chiefly on clinical observation, but one negative swab is always obtained. This method has so far been justified by results, as no return cases have occurred.

The Small-pox Hospital at Cherry Tree Farm, with an accommodation of 12 beds, which is in charge of a caretaker and his wife, who keep it in such a state as to be ready for a patient at the shortest notice, has not been required during the year.

These 3 Hospitals we share with the authorities of St. Albans Urban and Harpenden Urban Districts.

During the year 63 cases of Scarlet Fever were admitted into the Sisters' Hospital, 9 of which belonged to the City, 34

belonged to this District and 20 belonged to Harpenden. Seven cases of Diphtheria were admitted into the Diphtheria Hospital, 4 of which belonged to the City, 2 to this District, and 1 to Harpenden.

Arrangements are made by this Council for swabs of doubtful cases of Diphtheria (in suitable cases) to be examined at the Clinical Research Association, at the expense of this Council.

I have received from them during the year 8 reports as follows:—

Six on Swabs examined for Klebs Loeffler Bacilli for Diphtheria, all of which were negative.

Two on Sputum examined for Tubercl Bacilli, both of which were negative.

Diphtheria anti-toxin is in all suitable cases supplied at the expense of this Council.

At the Sisters' Hospital is a Thresh's Steam Disinfector where bedding and clothes may be disinfected. This is practically always done in cases of Scarlet Fever, Small-pox, etc., and frequently done after such illnesses as Consumption and Cancer. Formaldehyde is the disinfectant almost universally used in this district, but in addition every room is thoroughly cleansed with soap, water, and fresh air, and where necessary, whitewashed and papered.

Vaccination.

It is for obvious reasons impossible at this date to give any accurate Vaccination returns for the year ending December, 1913.

The following figures therefore are given for the 12 months ending June 30th, 1913, and have been supplied to me by Mr. Rogers, the Vaccination Officer:—

During this period there were 377 children born in this District, distributed among the Parishes as shewn in the following table :—

13 of these died in infancy without being vaccinated.

Of the remaining 364, 120 were vaccinated, and 1 was reported as insusceptible.

20 have gone away from the District before being vaccinated.

21, though having no Exemption Certificate, are reported as unvaccinated, and

202 Conscientious Objection Certificates were granted.

Parishes.	Births.	Deaths	Gone.	Unvaccinated (without Exemption Certificate.)	Vaccinated.	Insus- ceptible.	Conscient- ious Objection Certifi- cates.
Harpden Rural	6	1	...	...	1	...	4
Redbourn	39	1	1	...	9	...	28
St. Michaels Rural	12	...	1	1	4	...	6
St. Peters Rural.	189	4	9	5	60	1	110
St. Stephens	42	1	2	4	20	...	15
Sandridge Rural.	34	2	3	1	8	...	20
Wheathampstead	55	4	4	10	18	...	19
Totals	377	13	20	21	120	1	202

Public Elementary Schools.

There are 15 Public Elementary Schools in the District, 10 of which are Church of England Schools and 5 of which are County Council Schools.

The Schools obtain their Water Supply as follows :—

Fleetville ...	... from St. Albans Water Company's Mains.
Colney Street	... " " "
Camp	... " " "
Bernard's Heath	... " " "
London Colney	... " " "
St. Stephen's	... " " "
Colney Heath	... " Barnet Water Company's Mains.
Childwickbury	... " Childwick Private Water Supply.
Bricket Wood	... " Wells.
Gustard Wood	... " "
Wheathampstead	... " "
Redbourn	... " "
Kinsbourne Green	... " "
Park Street	... " "
Sandridge ...	... Has no Water Supply.

In my report to the School Medical Officer, besides a few minor points where I consider improvement might be effected with regard to heating, ventilation and lighting, I called his special attention to the following more important defects :—

The Cloakroom accommodation in Wheathampstead Mixed and Infant's School is inadequate.

The wash basin accommodation in these two Schools is also inadequate, and in Bricket Wood School there is no wash basin for boys, and at Redbourn there are none for the infants.

There is no water supply at Sandridge School. This requires immediate attention.

I have, through the Medical Officer for the County, repeatedly called the attention of the County Council to the disgraceful condition which exists at this School, and I would urge you, as the Sanitary Authority for this District, to press the fact upon the County Council with all the pressure which lies in your power.

At this School is kept a water carrier, which is frequently getting out of repair, and for the last few months the water has been fetched in pails. One of the scholars fetches the water in this water carrier from a well 200 yards distant.

To obtain water the children then dip their cups and jugs directly into the water. It is obvious that by such means the water must of necessity become soiled, not only by cups which are soiled after drinking out of them, but by hands, which are generally none too clean. The whole procedure is uncleanly, unhygienic, and disgusting to those who, unable to provide better, are obliged to witness it.

The following Schools were closed during the year :—

Camp Infants, on the 22nd January, for $2\frac{1}{2}$ weeks for Measles.

Camp Mixed, on the 29th January, for $1\frac{1}{2}$ weeks for Measles.

Bernard's Heath Infants, on the 11th February, for $2\frac{3}{4}$ weeks for Measles.

Sandridge, on the 11th March, for 9 days for Whooping-cough and general illness.

London Colney, on the 17th March, for 3 days, and on the 1st April, for one week for Measles.

Bricket Wood, on the 2nd May, for 1 week, and on the 19th May, for 1 week for Chicken-Pox.

General Sanitation.

The number of cowsheds on register in the year 1913 is 47, distributed as follows:—

Harpenden Rural	...	...	...	...	1
Redbourn	...	...	...	...	5
St. Michael's Rural	...	...	...	...	5
St. Peter's Rural	...	...	...	...	11
St. Stephen's	...	...	...	...	8
Sandridge	...	...	...	...	7
Wheathampstead	...	...	...	...	10
					—
					47

These are all regularly inspected, both by the Veterinary Inspector and Sanitary Inspector, and at times by myself.

Appended are the reports of the Inspector of Nuisances and Veterinary Inspector.

There are no common lodging-houses in the District.

Byelaws and Regulations.

The following Bye-laws and Regulations are in force in the District:—

- New Streets and Buildings.
- Offensive Trades.
- Nuisances.
- Slaughter-houses.
- Dairies, Cowsheds, and Milkshops.

Bye-laws for the prevention of nuisances, etc., arising from tents, vans, sheds, and similar structures used for human habitation have been approved by this Council, and returned to the Local Government Board for confirmation, and will no doubt shortly be in force in this District.

Briefly these provide that the occupier shall keep the tent, van or shed clean inside, and with a dry flooring, and that it shall be weather proof and properly ventilated.

He shall provide a suitable receptacle for water, with proper covering, and easily accessible, which must be kept thoroughly clean, and shall also provide a sufficient supply of wholesome water for the use of the inmates of the tent, van or shed.

In the event of an infectious disease occurring in the tent, van or shed, he shall adopt reasonable precautions that may be ordered by the Medical Officer of Health for preventing the spread of the disease, and he shall not allow other than a person in attendance to occupy the tent, van or shed, and he shall give the Medical Officer of Health twenty-four hours' notice before allowing the tent or van to be removed.

He shall not allow the tent or van to be moved to any other place or site where in the opinion of the Medical Officer of Health there would be danger of spreading infection.

He shall remove the tent or van to another site within the District in compliance with the order of the Medical Officer of Health, and he shall not remove the tent or van until it has been properly disinfected.

He shall remove the infectious case if required to do so by the Medical Officer of Health.

He shall immediately report to the Medical Officer of Health, the removal, death, or recovery of infectious patients, and do such cleansing, disinfecting, or destroying of infected articles, as required by the Medical Officer of Health.

He shall not allow any person to newly occupy any tent or van in which within the last six weeks any person has been suffering from an infectious disease without a certificate from a registered medical practitioner that the van has been satisfactorily disinfected.

The occupier shall provide sufficient receptacles for refuse, shall not allow solid or liquid filth to be retained in the van or deposited within 30 feet except in a proper receptacle, or so as to cause a nuisance, and receptacle to be immediately cleansed after using.

The occupier shall not keep any animal, or deposit the dung of any animal within forty feet of any water supply likely to be in any way used for domestic purposes, or in such a manner as to render such water liable to pollution.

The owner of the land shall in any case in which a nuisance is likely to arise from the want of such convenience, provide privy accommodation, and a covered receptacle for refuse, and maintain the same in good repair and order and in a reasonably clean and wholesome condition, and shall provide on such land a sufficient supply of wholesome water for the occupants of the tent, van or shed.

I append a schedule of Adoptive Acts and Urban Powers in force in this District, together with a brief description of their provisions.

ST. ALBANS RURAL DISTRICT COUNCIL.

Schedule of Adoptive Acts and Urban Powers in force in the above District.

Title of Act.

Infectious Disease (Notification) Act, 1889. (Adopted 26th March, 1890).

Epitome of Statutory Powers.

Provides for compulsory Notification of Infectious Diseases specified in the Act.

53
Provides powers as to inspection of Dairies and prohibiting supply of milk where there is reason to believe that the milk supply has caused, or may give rise to, infectious disease. Provision as to cleansing and disinfection of premises and of bedding or other articles exposed to infection, etc.

Urban Powers conferred on the Council by Orders of the Local Government Board.

Public Healths Acts Amendment Act, 1890, sec. 36.

Public Buildings to have ample and safe means of ingress and egress to the satisfaction of the Council.

Public Health Act, 1875, sec. 42.

Street Watering.

Public Health Act, 1875, sec. 44.

Power to make Byelaws imposing duty of cleansing footways and pavements, and the removal of house refuse, on the occupier of premises.

Public Health Act, 1875, sec. 47 (3).

Imposes penalty for allowing contents of water closet, privy or cesspools to overflow or soak therefrom. Council empowered to abate such nuisance and recover sum-marily.

Public Health Act, 1875, secs. 112, 113 and 114.

As to Offensive Trades. Imposes penalty for establishing without consent of Council. Empowers Council to make Byelaws and imposes penalties for nuisances arising from such offensive trades.

Public Health Act, 1875, sec. 169 (paragraph 3) and sec. 170.

Public Health Acts Amendment Act, 1890, sec. 23.

Power to regulate Slaughterhouses.

Power to make Byelaws with respect to :—The keeping of water closets supplied with sufficient water for flushing; the structure of floors, hearths and staircases, and the height of rooms intended to be used for human habita-tion; the paving of yards and open spaces in connection with dwelling-houses; and the provision in connection with the laying out of new streets and secondary means of access where necessary for the purpose of the removal of house refuse and other matters.

Public Health Act, 1875, secs. 229 and 230.

Provides that expenses incurred for street watering under sec. 42 shall be "special expenses."

Public Health Act, 1875, sec. 171 Such provisions as in-corporate or relate to the incorporation of the under-mentioned provisions of the Town Police Clauses Act, 1847, that is to say :—

So much of sec. 28 as imposes a penalty on the persons who, in any street, to the obstruction, annoyance, or danger of the residents or passengers, commit any of the offences specified in the schedule.

Prohibits the placing of merchandise, etc., on any footway, or the erection of any blind, covering, awning, or other projection over such footway of less than eight feet in height in any part thereof from the ground.

Public Health Acts Amendment Act, 1907 (Part IV), secs. 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67 and 68.

As to Infectious Diseases. Sec. 52.—Infected persons not to carry on occupation; Sec. 53.—Power to require dairymen to furnish list of sources of supply; Sec. 54.—Dairymen to notify infectious diseases existing among their servants; Sec. 55.—Infected clothes not to be sent to laundry; Sec. 56.—Filthy and dangerous articles to be purified; Sec. 57.—Child suffering from infectious disease not to attend school; Sec. 58.—List of scholars to be furnished where scholar in a school is suffering from infectious disease; Sec. 59.—Prohibits the use of books from a public or circulating library by any person suffering from infectious disease. (Note.—This sec. does not apply to a public or circulating library which is not within the district); Sec. 60.—Local Authority may pay expenses of persons in hospital; Sec. 61.—As to removal of persons from infectious premises and the provision of a temporary shelter, etc.; Sec. 62.—Imposes a penalty on the exposure of infected persons and things on any person who causes or commits such sufferer to be so exposed; Sec. 63.—Prohibits conveyance of infected person in public vehicles; Sec. 64.—Driver of infected person to give notice to Medical Officer of Health; Sec. 65.—Extending Sec. 164 of Public Health Act, 1875, to all persons who cannot be isolated in the house or premises; Sec. 66.—Power to cleanse and disinfect premises; Sec. 67.—Provision of nursing attendance by local authority where, owing to want of accommodation or otherwise, cases cannot be removed to the hospital; Sec. 68.—Prohibits the holding of a wake over body of person dying of infectious disease.

Urban Powers in force in parts of the Rural District.

Title of Act.	Parishes in which Powers are enforced.	Epitome of Statutory Powers.
Public Health Act, 1875, sec. 161 (par. 1).	Redbourn.	Public lighting of streets.
Public Health Act, 1875, sec. 160 (s. s. 1).	Redbourn, St. Peter Rural, Sandridge and St. Stephen.	As to naming streets and numbering houses.
Public Health Act, 1875, s. 66.	St. Michael Rural, St. Peter Kural and Sandridge Rural.	As to provision of fireplugs for securing an efficient supply of water.
Private Street Works Act, 1892 (except as to sewerage).	Sandridge Rural.	Power to make up Warwick and Boundary Roads.
	St. Peter Rural.	Power to make up, pave, etc., the following streets:—Harlesden, Sandfield, Burnham, Blandford, Glenferrie, Blenheim, Caven- dish, Albion, Tess, Princes, Laurel, Eaton, Castle, Cape, Kimberley, Sutton, Camp View and Brampton Roads.

Factories and Workshops.

There are 119 Factories and Workshops registered in the District. Of these, 30 are Factories and 89 are Workshops, distributed in the different parishes as follows :—

	Factories.	Workshops.	Total.
Harpden Rural...	0	0	0
Redbourn ...	6	17	23
St. Michael's Rural	0	1	1
St. Peter's Rural ...	12	30	42
St. Stephen's ...	5	15	20
Sandridge ...	2	5	7
Wheathampstead	5	21	26
	—	—	—
	30	89	119

Table showing number and nature of employment of Factories and Workshops in each locality.

TRADE.	Harpden Rural	Redbourn	St. Michaels	St. Peters	St. Stephens	Sandridge	Wheathampstead	Totals.	Factories	Workshops
Bakers ...	4	...	8	3	2	6	23	1	22	1
Brush Makers ...	1	...	...	...	...	...	1	1	0	0
Silk Works ...	1	...	...	...	...	...	1	1	0	0
Fellmongers ...	1	...	...	...	...	...	1	0	1	1
Jam Works ...	1	...	...	...	...	...	1	1	0	0
Saddlers ...	2	...	...	...	...	2	4	0	4	0
Tailors ...	...	...	2	1	...	...	2	5	1	4
Straw Goods ...	...	...	...	...	...	...	1	1	1	0
Laundries ...	1	...	5	2	...	...	1	9	0	9
Dressmakers ...	3	...	3	2	...	...	...	8	0	8
Builders ...	1	...	3	...	...	...	2	6	0	6
Flour Mills ...	2	...	...	4	...	...	2	8	0	0
Plumbers, etc.	1	...	...	...	...	...	1	2	0	2
Rubber Works ...	...	...	2	...	...	...	1	3	2	1
Printers ...	...	...	3	...	...	...	...	3	3	0
Cycle Works...	1	...	2	...	...	...	2	5	0	5
Brick Kilns ...	...	...	2	...	...	...	...	2	2	0
Farriers ...	1	...	1	2	1	2	7	0	7	0
Chandlers ...	...	...	...	...	1	...	...	1	1	0
Gas Works ...	1	...	...	...	...	...	...	1	1	0
Electric Works ...	...	...	2	1	...	...	1	3	3	0
Boot Makers ...	...	...	3	1	...	...	1	5	0	5
Steel Tool Makers ...	...	...	...	...	1	...	...	1	1	0
Musical Instrument Makers	...	...	1	...	...	...	...	1	1	0
Carpenters ...	2	1	3	4	2	2	14	0	14	0
Mineral Waters ...	...	...	1	...	...	...	1	1	0	1
Dyers and Cleaners...	...	...	1	...	...	1	...	1	1	0
Photographic Works...	...	...	...	1	...	...	1	1	1	0
Totals ...	0	23	1	42	20	7	26	119	30	89

N.B.—Under the heading of "Carpenters" are included Cabinet Makers, Upholsterers, Undertakers, Wheelwrights and Coachbuilders.

There is no overcrowding in any Workshop in the District, nearly all provide 500 c.f. air space, and many provide much more.

There are no wholesale bakehouses in the District.

Under the Factories and Workshops Act, 1901, no underground Bakehouse must be used after January 1st, 1904, without written permission of the Sanitary Authorities.

There is only one such underground Bakehouse in the District, which is in Wheathampstead Parish, and this has received the necessary permission of this Council.

There are 5 Factories and 1 Workshop in this District which employ more than 40 persons. They are situated as follows :—

St. Peter's, 3 Factories.
Sandridge, 1 Factory.
Redbourn, 1 Factory.
Redbourn, 1 Workshop.

These all have adequate means of escape from fire.

There are no outworkers of the specified classes in this District.

I should like here to especially bring to your notice, the excellent work which has been done during the year by your Sanitary Inspector, more especially with regard to the work done under the Housing and Town Planning Act. The businesslike and careful way in which he year after year follows up the defects, the effective way in which he gets the

work carried out, together with the absence of friction, are marked features of all Mr. Davey's work.

It is not possible to draw comparisons, but I have no hesitation in saying that in no part of the County is the work under the Housing and Town Planning Act more conscientiously carried out.

My thanks are due to him for his willing co-operation, and to the officers of this Council for their valuable assistance, and to you gentlemen for the very courteous way in which you have always treated me.

I am,

Your obedient servant,

HENRY E. MAY,

M.A., M.B., B.C. CANTAB.,

Medical Officer of Health.

SANITARY INSPECTOR'S REPORT

For the Year ending December 31st, 1913.

To the Chairman and Members of the St. Albans Rural District Council.

GENTLEMEN,

I beg to present my fifth annual report dealing with the sanitary work in the Rural District of St. Albans for the year 1913.

In the routine of work 2505 visits have been paid and 728 houses were inspected, 98 premises were visited on complaints, 179 premises for special enquiry, and 45 premises were visited in connection with infectious disease. Nuisances or sanitary defects numbering 721 were entered in my journal, and in connection with this work 511 letters were written, 112 informal and 8 statutory notices were served. No legal proceedings were taken. Full details of the work are set out in the accompanying tabulated statement, a copy of which has to be forwarded annually to the County Medical Officer of Health.

The necessary inspections were made of the trade premises under the Factory and Workshop Act. In 6 cases limewashing was found to be necessary, 2 premises were insufficiently ventilated, 2 premises had unsuitable and defective closet accommodation, and 1 bakehouse had a defective and unclean floor. The owners were notified of the defects and 8 of the 11 were remedied. Other works are in hand.

The Dairies, Cowsheds and Milkshops were visited twice during the year and found generally to be in good condition. Limewashing, although carried out in a few instances later than the dates mentioned in the regulations, was in every case

carried out twice and in some cases three times during the year. The keeping of swine under the same roof as cows is contrary to the Dairy and Cowsheds Order; 2 such cases were found and remedied. A few cowkeepers were found selling milk without having applied for registration. Upon this being brought to the notice of the Council it was decided to display posters in the villages, pointing out the legal obligation of persons engaging in the milk trade to apply for registration.

Under the Infectious Diseases Notification Acts all premises have been visited, bedding and clothing disinfected in accordance with the instructions of the Medical Officer of Health. The rooms were cleansed with disinfectant fluid, the paper "stripped" off the walls where necessary, and all the ceilings limewashed. All requests for disinfection after cases of Whooping Cough, Measles, Phthisis, &c., were immediately complied with.

Frequent visits have been paid to slaughter houses within the district, also the two horse slaughtering premises at London Colney. The drainage of one of the latter was almost entirely re-constructed during the year, and with ordinary care the premises can now be kept in a satisfactory condition.

Meat inspection was carried out whenever practicable, but in a rural area it is not possible to arrange for the inspection of all animals killed. No tuberculous carcases or organs were found.

I am, Gentlemen,
Your obedient Servant,
ROY S. DAYEY, M.S.I.A., &c.,
Inspector of Nuisances.

INSPECTIONS.

					No. of Premises Inspected.	No. of Visits Paid.
Houses.						
Houses inspected in routine	...	...	...	...	728	
„ re-inspected ...	...	...	...	...	911	
„ inspected on complaint	...	...	...	...	98	2505
„ „ for special inquiry	...	...	...	...	179	
„ after Infectious Disease, visits to	...	...	...	...	45	
Common Yards, Courts and Alleys	...	...	...	...	53	
Schools.						
Visits to	...	...	...	...	16	19
Trade Premises.						
Bakehouses	...	...	...	...	23	18
Laundries	...	...	...	...	9	5
Cowsheds	...	...	...	...	45	85
Milkshops	...	...	...	...	5	5
Food Factories	...	...	...	...	1	3
Slaughter-houses	...	...	...	...	13	31
Offensive Trade Premises	...	...	...	...	5	12
Other Factories	...	...	...	...	29	25
Other Workshops	...	...	...	...
Other Workplaces	...	...	...	...	57	48
Visits after serving Notice	...	...	...	...	16	21
Visits to works in progress	...	...	...	...	5	11

NEW OR REMEDIAL WORKS.

Houses.

Houses erected 63; Rebuilt 12; Placed in habitable repair 51.

Houses disinfected 45; Cleansed 89; Closed 14.

Houses demolished 6; Houses in which overcrowding abated 7.

Walls, damp and defective, remedied 57.

Roof, guttering, or spouting, repaired 37.

Windows made to open 18; Lighting improved 14; Ventilation improved 14.

Drainage.

Privies abolished 20 ; Repaired 4 ; Cleansed 4 (by notice).

Privies changed to Pail-closets 5 ; Changed to Water-closets 2.

Plail-closets, new 71, all cleansed weekly ; changed to W.C.'s 4.

Water-closets to new houses 75 ; To old houses 4 ; Repaired 12 ; Cleansed 3.

Water-closets supplied with water 79.

Cisterns and flushing apparatus repaired 12.

Pipes disconnected, Sink 6 ; Bath 2.

Urinals repaired 1.

Drains, newly constructed, new 46, old 18 ; Repaired 100 ; Unstopped 19.

Drains tested by water 22 ; by smoke 5 ; by chemical test 1.

Houses connected to sewers, old 2.

Cesspools emptied 108 (by notice and Council's van).

Cesspools sunk, new 40, old houses 7.

Water.

Wells sunk 5 ; Extended 1 ; Cleansed or Repaired 4.

Houses connected with water mains, new 46 ; Old 6.

Yards.

Yards paved 45.

Ashpits removed 4 ; Sanitary dustbins provided 111.

Accumulations of manure, etc., removed 18.

Erections in yards removed 3.

Trade Premises.

Factories, Ventilation improved 1.

Workshops supplied with proper Closet accommodation 2.

Workshops Cleansed or Limewashed 1.

Bakehouses Cleansed or Limewashed 4.

Food.

Carcases inspected whenever possible ; Condemned or partly so, 0.

Various.

Cases in which filthy bedding destroyed 1.

Temporary or moveable dwellings inspected 7.

Birds and animals improperly kept, removed, cases 18.

Complaints of smoke nuisance 2.

Pollution of watercourses 2.

Water-wasting reported 2.

Clerical and Legal Work.

Letters written 511.

Notices served, informal 112 ; Statutory 8.

Summons issued 0.

Convictions 0

NOTE.—The figures relating to New Buildings have been kindly supplied by the Council's Surveyor (Mr. H. F. Mence). For the purposes of this report the St. Albans City Extension is taken as not coming into effect until January 1st, 1914, as far as it relates to Population, Inhabited Houses and Trade Premises.

VETERINARY INSPECTOR'S REPORT.

To the Chairman and Members of the St. Albans Rural District Council.

GENTLEMEN,

I have much pleasure in presenting my report on the Cows and Cowsheds in your district for the twelve months ending December 31st, 1913.

All these have been regularly inspected, and I am glad to say that they are all in good order.

Notwithstanding the Tuberculosis Order having been in force some months, I have not had a single case of Tuberculosis of the Udder, and only one of Tuberculosis with Emaciation.

So the district is to be congratulated upon being so free from disease.

I am,

Your obedient Servant,

H. F. REYNOLDS, M.R.C.V.S.,

*Veterinary Inspector to the St. Albans
Rural District Council.*

TABLE I.—Vital Statistics of Whole District during 1913 and previous Years.

YEAR.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THIS DISTRICT.	
	Population estimated to middle of each Year.	Uncorrected Number	Nett.		Number	Rate.	Number	Rate.
			Number	Rate.				
1	2	3	4	5	6	7	8	9
1908	14099	...	423	30.07	310	22.05	140	18
1909	17333	...	432	24.8	283	16.3	158	18
1910	17551	...	394	22.4	311	17.6	163	28
1911	17469	421	425	24.32	300	17.17	145	25
1912	17718	414	416	23.47	322	18.17	181	26
1913	17948	406	409	22.78	318	17.71	170	31
Plus 2543 estimated population of 2 Asylms	20491	...	...	19.95	...	15.51	...	...

Area of District in acres (land and inland water) ... 38772 acres.

Total population at all ages	...	...	19,469
Number of inhabited houses	...	...	3,995
Average number of persons per house	...	...	4.8
			4.37
Less 2,000 estimated population of 2 Asylms.			17,469
3,995			...
At Census of 1911.			...
4.37			...

TABLE II.—Cases of Infectious Diseases notified during the Year 1913.

NOTIFIABLE DISEASES.	At all Ages.	Number of Cases Notified.					Total Cases Notified in each Locality.	Total cases removed to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.		
Small-pox	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	2	...	1	1	4	9	...	2
Erysipelas	14	...	3	31	2	3	...	...
Scarlet Fever	39	...	...	...	...	...	...	34
Typhus Fever	...	...	...	...	...	...	...	...
Enteric Fever	1	...	...	...	1	...	1	...
Relapsing Fever	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...
Puerperal Fever	...	...	...	...	...	...	...	...
Cerebro-spinal Men- ingitis	...	...	...	...	...	...	...	...
Poliomyelitis	...	...	...	...	...	...	...	...
Pulmonary Tuber- culosis	26	...	...	2	6	16	2	...
Other forms of Tuber- culosis	9	...	2	4	2	1	...	1
Totals	...	91	6	38	11	25	11	7
Harpenden Rural.							13	2
Redbourn.							1	44
St. Peters Rural.							1	7
St. Stephens.							3	9
Sandridge.							3	15
Wheatham- stead.							1	36

Isolation Hospital or Hospitals, { Sisters' Hospital for Scarlet Fever and Diphtheria. } Belong jointly to St. Albans Urban, Harpenden Sanatoria, &c.
 { Small-pox Hospital.

TABLE III.—Causes of, and Ages at Death during the Year 1913.

Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.

CAUSES OF DEATH.	All Ages.	Under 1 Year.						Upwards.					
		1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	174	1	48	64	...
All Causes { Certified...	178	30	3	5	2	5	21	...	...	...	...	...	...
Uncertified...	1	1	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ...	9	...	...	...	...	...	2	6	1	...	...	...	32
Tuberculous Meningitis ...	3	1	1	1	1	1	...	...	...	...	...	...	...
Other Tuberculous Diseases ...	2	...	...	...	...	...	...	...	...	2	...	...	3
Cancer, Malignant Disease ...	25	...	...	...	...	...	...	...	2	13	10	9	...
Rheumatic Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis ...	...	...	2	...	...	...	1	...	...	1	...	...	...
Organic Heart Disease ...	20	...	...	...	...	...	...	...	1	2	7	10	19
Bronchitis ...	13	1	1	1	1	1	1	1	1	2	2	10	3
Pneumonia (all forms) ...	6	...	...	...	...	...	...	...	1	1	1	1	12
Other Diseases of Respiratory Organs ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis ...	8	7	1	1	1	1	1	1	1	1	1	1	1
Appendicitis and Typhlitis ...	...	1	1	1	1	1	1	1	1	1	1	1	1
Cirrhosis of Liver ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease ...	...	7	...	...	...	...	...	...	...	4	3	3	15
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Accidents and Diseases of Pregnancy and Parturition ...	...	...	...	...	...	...	...	...	...	...	...	...	...
CongenitalDebility and Malformation, including Premature Birth ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide ...	16	15	...	...	...	...	1	...	...	2	2	...	1
Suicide ...	4	...	...	...	...	...	...	...	...	...	...	...	...
Other Defined Diseases ...	2	3	...	...	1	...	1	...	...	8	9	30	77
Diseases ill-defined or un-known ...	1	1	...	...	...	...	...	...	...	...	...	...	...
All Causes ...	179	31	3	5	2	5	21	48	1	61	48	64	175

Total Deaths in the Non-institutional Residents of the District.
Residents in Institutions within the District.

TABLE IV.—Infant Mortality during the Year 1913.

Cause of Death.	All Causes {		Certified	Uncertified	1 week. Under 4 weeks.	1-2 weeks. 2-3 weeks.	3-4 weeks.	Total under 4 weeks.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total under 1 year.	
	Certified	Uncertified	...	...					...	...	...	...	...
Small Pox
Chicken Pox...
Measles
Scarlet Fever
Whooping Cough	1	...	1	...	2	...
Diphtheria and Croup	1	...	1	...	1	...
Erysipelas
Tuberculous Meningitis	1	...	1	...
Abdominal Tuberculosis	1	...	1	...
Other Tuberculous Diseases
Meningitis (<i>not Tuberculosis</i>)
Convulsions	1	...	1	...	2	...
Laryngitis	1	...
Bronchitis	1	...
Pneumonia (all forms)	1	...	1	...
Diarrhoea	1	...	1	...
Enteritis	4	...	5	...
Gastritis
Syphilis	1	...	1	...
Rickets
Suffocation, overlying	1	...	1	...
Injury at Birth
Atelectasis	2	...	2	...
Congenital Malformations...	2	...	...	1	...	1	...	12	...
Premature Birth	6	4	1	...	11	1	1	...	1	...
Atrophy, Debility and Marasmus	1	...	...	...	...	...	1	...	1	...	1	...
Other Causes	15	9	2	3	2
	9	5	1	...	...	...	...	...	15	9	2	3	2	31

Nett Births in the year—Legitimate 404, Illegitimate 5. Nett Deaths in the year of—Legitimate Infants 27, Illegitimate Infants 4.

